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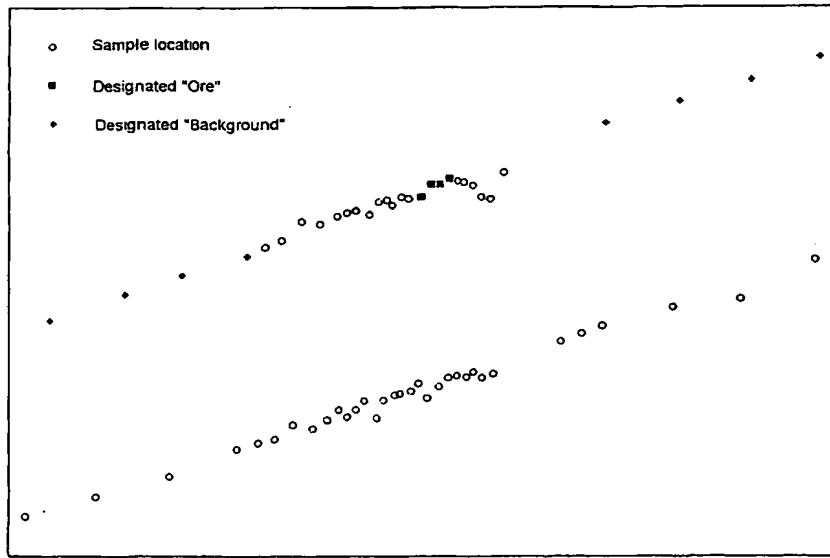
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(57) Abstract: A method of soil-gas analysis prospecting including the steps of collecting a plurality of soil samples; subjecting each soil sample to soil-gas analysis for a plurality of signature gases to provide a signature gas value for each signature gas which together comprise a gas analysis subset for each sample; performing a multivariate discriminant analysis by providing for each sample a plurality of gas ratios by dividing a product of two or more signature gas values by a product of two or more signature gas value for each of the signature gases; and summing the gas ratios for each sample in the subset to provide a composite summed ratio parameter; and comparing the composite summed ratio parameter measured from the survey samples with the same parameter measured on samples having predetermined characteristics for a known mineralisation.

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